QUARTERLY UPDATE

FOR JULY 1, 1994 THROUGH SEPTEMBER 30, 1994

HISTORICAL RELEASE REPORT (HRR)

PREPARED BY

ENVIRONMENTAL RESTORATION
FACILITIES OPERATIONS MANAGEMENT

EG&G ROCKY FLATS, INC.

OCTOBER 1994

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HRR QUARTERLY UPDATE
AGENCY ACCEPTANCE FORM

HRR QUARTERLY UPDATE 9

The recommendations of the Department of Energy (DOE) with regard to the need for future actions, or the lack of the need for future actions, are included in each PAC narrative description included in this quarterly update Any PACs for which a decision is deferred will be addressed in future HRR quarterly updates

Please note any exceptions to the recommended actions below or attach comments to this form as needed·

_____

_____

_____

_____

Please provide comments or acceptance within two weeks from receipt of quarterly update submittal

DOE Signature	CDH Signature	EPA Signature
	☐ CDH agrees with recommendations ☐ CDH disagrees with recommendations, see comments	☐ EPA agrees with recommendations ☐ EPA disagrees with recommendations, see comments
DOE Concurrence	CDH Signature and Position	EPA Signature and Position

TABLE OF CONTENTS

DESCRIPTION		PAGE
HRR QUARTERLY UPDATE AGENCY ACCEPTANCE FORM		2
1.0	INTRODUCTION	4
2.0	NEW PAC NARRATIVES	13
	PAC REFERENCE NUMBER: 900-1313 (Seep Area Near OU-2 Influent Piping)	14
	PAC REFERENCE NUMBER. SW-1701 (Recently Identified Ash Pit)	19
	PAC REFERENCE NUMBER. SW-1702 (Suspected Ash Pit)	21
	PAC REFERENCE NUMBER. 500-907 (Tanker Truck Release of Hazardous Waste from Tank 231B)	23
	PAC REFERENCE NUMBER. 900-1314 (Solar Evaporation Pond 207B Sludge Release)	25
3.0	REVISED PAC NARRATIVES	27
4.0	REVISED IHSS AND PAC MAPS	28

1.0 INTRODUCTION

This Ninth Quarterly Update to the Historical Release Report (HRR) provides a variety of information pertaining to spills, releases, and/or findings of contaminants at the Rocky Flats Environmental Technology Site (RFETS), formerly known as the Rocky Flats Plant (RFP). This information includes:

- HRR Quarterly Update Agency Acceptance Form,
- listing of PACs identified since the June 1992 HRR per Section I.B.3 of the Interagency Agreement (IAG) - Quarterly Notification (see Table 1).
- listing of all PACs identified in the June 1992 HRR (see Table 2)
- releases to the environment identified during July 1, 1994, through September 30, 1994,
- an up-to-date Individual Hazardous Substance Site (IHSS) map; and
- an up-to-date Potential Area of Concern (PAC) map.

Table 1 provides a list of all PACs identified since the June 1992 HRR. It also provides a cross-reference for the Operable Unit (OU) in which the incident occurred, IHSS numbers for spills occurring within an IHSS, a Resource Conservation and Recovery Act (RCRA) Contingency Plan Implementation Report (CPIR) cross-reference number and the number of the quarterly update in which the PAC was originally identified Narrative descriptions of PACs identified in the Ninth Quarterly Updates are included in this document Table 2 provides a listing of all PACs referenced in the June 1992 version of the Historical Release Report (HRR).

Revisions to PAC narratives are reserved for Section 3 0 of this document, however; there are no PAC narratives to update for this quarterly report. This section is used to modify past narratives based on validated analytical data which becomes available after the reporting process has begun

Up-to-date copies of IHSS and PAC maps are included in Section 4 0 The IHSS map reflects the most current boundary location of IHSSs based on work to date at the various Operable Units The PAC map includes all PACs identified to date, as well as Under Building Contamination (UBC) sites Up-to-date maps will continue to be issued with each quarterly report These maps are made available to all plant organizations requiring the most accurate and current information

TABLE 1
NEW PACS IDENTIFIED IN QUARTERLY UPDATES

IHSS[1]	OU[1]	CPIR Cross-Reference[2]	PAC	PAC NAME[3]	Original Quarterly Update #
142.6	6	NA	NE-1404	Diesel Spill at Pond B-2 Spillway	2
NA	2	NA	NE-1405	Diesel Fuel Spill at Field Treatability Unit *(formerly NE-1404)*	3
NA	4	NA	NE-1406	771 Hillside Sludge Release	4
NA	2	93-002	NE-1407	OU 2 Treatment Facility	4
NA	2	93-005	NE-1408	OU 2 Test Well *(formerly NE-1406)*	4
NA	4	93-007	NE-1409	Modular Tanks and 910 Treatment System Spill *(formerly 000-503)*	5
NA	2	NA	NE-1410	Diesel Fuel Spill at Field Treatability Unit	7
NA	2	NA	NE-1411	Diesel Fuel Overflowed from Tanker at OU 2 Field Treatability Unit	7
NA	10	NA	NW-1500	Diesel Spill at PU&D Yard *(formerly NW-175)*	2
NA	10	NA	NW-1501	Asbestos Release at PU&D Yard *(formerly NW-176)*	2
114	7	92-021	NW-1502	Improper Disposal of Diesel Contaminated Material at Landfill *(formerly NW-177)*	2
114	7	92-004	NW-1503	Improper Disposal of Fuel Contaminated Material at Landfill	1
114	7	94-002	NW-1504	Improper Disposal of Thorosilane Contaminated Material at Landfill	7

TABLE 1 (Continued)
NEW PACS IDENTIFIED IN QUARTERLY UPDATES

IHSS[1]	OU[1]	CPIR Cross-Reference[2]	PAC	PAC NAME[3]	Original Quarterly Update #
NA	5	NA	SW-1701	Recently Identified Ash Pit	9
NA	5	NA	SW-1702	Recently Identified Ash Pit	9
NA	NA	94-005	000-503	Solar Pond Water Spill Along Central Avenue	7
NA	NA	93-003	100-613	Asphalt Surface in Lay Down Yard North of Building 130 *(formerly identified as 000-501)*	4
NA	NA	93-003	300-711	Ni-Cad Battery Spill Outside of Building 373	1
NA	NA	92-002	300-712	1/2 gal Antifreeze Spilled by Street Sweeper Outside of Building 373	1
NA	NA	94-006	300-713	Caustic Spill North of Building 331	8
NA	NA	NA	400-811	Transformer 443-2, Building 443	2
NA	NA	93-009	400-812	Tank T-2 Spill in Building 460	6
NA	NA	94-001	400-813	RCRA Tank Leak in Building 460	7
NA	NA	94-007	400-814	Air Conditioner Compressor Release, Building 444 Roof	8
NA	NA	94-008	400-815	RCRA Tank Leak in Building 460	8

TABLE 1 (Continued)
NEW PACS IDENTIFIED IN QUARTERLY UPDATES

IHSS[1]	OU[1]	CPIR Cross-Reference[2]	PAC	PAC NAME[3]	Original Quarterly Update #
NA	NA	93-004	500-906	Asphalt Surface Near Building 559	4
172	13	94-009	500-907	Tanker Truck Release of Hazardous Waste From Tank 231B	9
52, 157 1, 172	12	NA	600-1004	Central Avenue Ditch Cleaning Incident (formerly identified as 400-820)	6
NA	NA	NA	600-1005	Former Pesticide Storage Area	7
NA	NA	92-005	800-1212	Building 866 Sump Spill	5
NA	NA	NA	900-1308	Gasoline Spill Outside of Building 980	6
NA	2	93-010	900-1309	OU 2 Field Treatability Unit Spill	6
NA	NA	92-023	900-1310	ITS Water Spill (formerly identified as 000-502)	2
NA	NA	NA	900-1311	Septic Tank East of Building 991	7
NA	2	94-004	900-1312	OU-2 Water Spill	7
192	16	NA	900-1313	Seep Area Near OU-2 Influent	9
101	4	94-010	900-1314	Solar Evaporation Pond 207B Sludge Release	9

[1]NA = Not applicable Not all PACs are located in Individual Hazardous Substance Sites (IHSSs) or Operable Units (OUs) Likewise, not all PACs are identified in RCRA Contingency

TABLE 1 (Continued)
NEW PACS IDENTIFIED IN QUARTERLY UPDATES

Plan Implementation Reports (CPIRs)

[2]RCRA Contingency Plan Implementation Reports (CPIRs) identified during the Eighth Quarter included CPIRs 94-006 through 94-008. Each incident involved a release to the environment and is therefore identified as a PAC

[3]Several PAC numbers have been revised to reflect a more accurate location on the PAC map Former PAC numbers are identified in parentheses within italics.

TABLE 2
ORIGINAL POTENTIAL AREAS OF CONCERN
SUBMITTED IN HISTORICAL RELEASE REPORT - JUNE 1992

IHSS NO	OU NO.	PAC NO	PAC NAME	PAGE
NORTHEAST BUFFER ZONE				
NA[2]	NA	NE-1400	Tear Gas Powder Release	NE-36
NA	NA	NE-1401	NE Buffer Zone Gas Line Break	NE-37
NA	NA	NE-1402	East Inner Gate PCB Spill	NE-38
NA	NA	NE-1403	Gasoline Spill - Building 920 Guard Post	NE-39
NORTHWEST BUFFER ZONE				
NA	NA	SE-1600	Pond 7 - Steam Condensate Releases	SE-10
NA	NA	SE-1601	Pond 8 - Cooling Tower Discharge Releases	SE-13
SOUTHWEST BUFFER ZONE				
NA	NA	SW-1700	Fuel Spill into Woman Creek Drainage	SW-15
000 AREA				
NA	NA	000-500	Sanitary Sewer System	000-49
NA	NA	000-501	Roadway Spraying	000-60
100 AREA				
NA	NA	100-600	Mercury Spill - Valve Vault 124-B, Building 124	100-8
NA	NA	100-601	Building 123 Phosphoric Acid Spill	100-10
NA	NA	100-602	Building 123 Process Waste Line Break	100-11
NA	NA	100-603	Building 123 Bioassay Waste Spill	100-13
NA	NA	100-604	T130 Complex Sewer Line Leaks	100-15
NA	NA	100-605	Building 115 Hydraulic Oil Spill	100-16
NA	NA	100-606	Building 125 TCE Spill	100-17
NA	NA	100-607	Building 111 Transformer PCB Leak	100-18
NA	NA	100-608	Building 131 Transformer Leak	100-20
NA	NA	100-609	Building 121 Security Incinerator	100-21
NA	NA	100-610	Asbestos Release - Building 123	100-22
NA	NA	100-611	Building 123 Scrubber Solution Spill	100-23
NA	NA	100-612	Battery Solution Spill - Building 119	100-25
300 AREA				
NA	NA	300-700	Scrap Roofing Disposal	300-25

TABLE 2 (continued)

IHSS NO	OU NO	PAC NO	PAC NAME	PAGE
NA	NA	300-701	Sulfuric Acid Spill - Building 371	300-26
NA	NA	300-702	Pesticide Shed	300-27
NA	NA	300-703	Building 331 North Area	300-28
NA	NA	300-704	Roof Fire, Building 381	300-29
NA	NA	300-705	Potassium Hydroxide Spill North of Building 374	300-30
NA	NA	300-706	Evaporator Tanks North of Building 374	300-31
NA	NA	300-707	Sanitizer Spill	300-33
NA	NA	300-708	Transformers North of Building 371	300-34
NA	NA	300-709	Transformer Leak 334-1	300-35
NA	NA	300-710	Gasoline Spill North of Building 331	300-36
400 AREA				
NA	NA	400-800	Transformer 443-1	400-40
NA	NA	400-801	Transformer, Roof of Building 447	400-41
NA	NA	400-802	Storage Area, South of Building 334	400-42
NA	NA	400-803	Miscellaneous Dumping, Building 460 Storm Drain	400-44
NA	NA	400-804	Road North of Building 460	400-45
NA	NA	400-805	Building 443 Tank #9 Leak	400-46
NA	NA	400-806	Catalyst Spill, Building 440	400-47
NA	NA	400-807	Sandblasting Area	400-48
NA	NA	400-808	Vacuum Pump Leak - Building 442	400-49
NA	NA	400-809	Oil Leak - 446 Guard Post	400-51
NA	NA	400-810	Beryllium Fire - Building 444	400-52
500 AREA				
NA	NA	500-900	Transformer Leak - 515/516	500-15
NA	NA	500-901	Transformer Leak - 555	500-17
NA	NA	500-902	Transformer Leak - 559	500-18
NA	NA	500-903	RCRA Storage Unit #1	500-19
NA	NA	500-904	Transformer Leak - 223-1/223-2	500-20
NA	NA	500-905	Transformer Leak - 558-1	500-22

TABLE 2 (continued)

IHSS NO	OU NO	PAC NO.	PAC NAME	PAGE
600 AREA				
NA	NA	600-1000	Transformer Storage Building 662	600-18
NA	NA	600-1001	Temporary Waste Storage Building 663	600-20
NA	NA	600-1002	Transformer Storage - West of Building 666	600-24
NA	NA	600-1003	Transformers North and South of 661-675 Substation	600-25
700 AREA				
NA	NA	700-1100	French Drain North of Building 776/777	700-76
NA	NA	700-1101	Laundry Tank Overflow - Building 732	700-77
NA	NA	700-1102	Transformer Leak - 776-4	700-78
NA	NA	700-1103	Leaking Transformers - Building 707	700-80
NA	NA	700-1104	Leaking Transformers - Building 708	700-82
NA	NA	700-1105	Transformer Leak - 779-1/779-2	700-83
NA	NA	700-1106	Process Waste Spill - Portal 1	700-84
NA	NA	700-1107	Compressor Waste Oil Spill - Building 776	700-86
NA	NA	700-1108	771/774 Footing Drain Pond	700-87
NA	NA	700-1109	Uranium Incident - Building 778	700-90
NA	NA	700-1110	Nickel Carbonyl Burial West of Building 771	700-91
NA	NA	700-1111	Leaking Transformer - Building 750	700-92
NA	NA	700-1112	Leaking Transformer - 776-5	700-93
800 AREA				
NA	NA	800-1200	Valve Vault 2	800-28
NA	NA	800-1201	Radioactive Site South of Building 883	800-30
NA	NA	800-1202	Sulfuric Acid Spill, Building 883	800-31
NA	NA	800-1203	Sanitary Sewer Line Break Between Buildings 865 and 886	800-32
NA	NA	800-1204	Building 866 Spills	800-33
NA	NA	800-1205	Building 881, East Dock	800-35
NA	NA	800-1206	Fire, Building 883	800-36
NA	NA	800-1207	Transformer 883-4	800-37

TABLE 2 (continued)

IHSS NO	OU NO	PAC NO	PAC NAME	PAGE
NA	NA	800-1208	Transformer 881-4	800-38
NA	NA	800-1209	Leaking Transformers, 800 Area	800-39
NA	NA	800-1210	Transformer 865-1 and 865-2	800-40
NA	NA	800-1211	Capacitor Leak, Building 883	800-41
900 AREA				
NA	NA	900-1300	RO Plant Sludge Drying Beds	900-47
NA	NA	900-1301	Building 991 Enclosed Area	900-48
NA	NA	900-1302	Gasoline Spill	900-50
NA	NA	900-1303	Natural Gas Leak	900-51
NA	NA	900-1304	Chromic Acid Spill - Building 991	900-52
NA	NA	900-1305	Building 991 Roof	900-53
NA	NA	900-1306	Transformers 991-1 and 991-2	900-54
NA	NA	900-1307	Explosive Bonding Pit	900-55

SECTION 2.0

NEW PAC NARRATIVES

(PACS IDENTIFIED DURING JULY 1, 1994, THROUGH SEPTEMBER 30, 1994)

PAC REFERENCE NUMBER: 900-1313

IHSS Number: 192

Unit Name: Seep Area Near OU-2 Influent Piping

CPIR No . NA

Approx Location. N749,995, E2,086,231

Date(s) of Operation or Occurrence

March 18, 1994

Description of Operation or Occurrence

At approximately 2 00 p m on March 18, 1994, during a Colorado Department of Public Health & Environment (CDPH&E) inspection of Walnut Creek two to three gallons of a glossy liquid substance was noticed in a stagnant pool within the creek bed approximately ten feet downstream from the OU-2 water treatment facility intake (SW-61) Samples were collected by both plant and CDPH&E personnel on March 18, 1994 Additional samples were collected by plant personnel on March 24, April 7, and October 25, 1994. Validated results from all but the October sampling event show elevated levels of vinyl chloride, and other volatile organics listed below Vinyl Chloride is not a contaminant of concern identified in the influent waters pumped to the OU-2 water treatment facility The location of this seep area can be seen on Figure 1, the photograph following this narrative, and on the revised PAC map in Section 4 0

Physical/Chemical Description of Constituents Released

The stagnant appearance of the pool and the glossy sheen observed on the surface were determined to be from anaerobic degradation typical of "pond scum" environments, however sample results from three sampling events indicate the presence of volatile organic compounds as follows.

SAMPLE DATE	CHEMICAL	RESULT	UNITS
18-MAR-94	1,1-Dichloroethane	19	UG/L
18-MAR-94	Vinyl Chloride	65	UG/L
18-MAR-94	1,2-Dichloroethene	1	UG/L
24-MAR-94	1,1-Dichloroethane	24	UG/L
24-MAR-94	Vinyl Chloride	84	UG/L

SAMPLE DATE	CHEMICAL	RESULT	UNITS
24-MAR-94	1,2-Dichloroethene	2	UG/L
07-APR-94	1,1-Dichloroethane	22	UG/L
07-APR-94	Benzene	0 2	UG/L
07-APR-94	Trichloroethene	0 3	UG/L
07-APR-94	1,2-Dichloroethene	2	UG/L
07-APR-94	Tetrachloroethene	0.3	UG/L

Response to Operation or Occurrence

After the seep area was identified, samples were taken for Volatile Organic Analysis (VOAs) by Rocky Flats and CDPH&E personnel The discovery was reported as Off-Normal. Several specialists were notified and observed the area where it was identified as an anaerobic degradation process commonly called "pond scum" Approximately 3 - 4 gallons of the liquid was pumped from the area and treated at the Operable Unit 2 (OU-2) Water Treatment Unit. The area was monitored, pumped, and sampled routinely for approximately 1 month with additional sediment samples collected on October 25, 1994 The area is thought to be a seep due to its appearance and short recharge time Sample results from the Colorado Department of Public Health & Environment were not available at the time of this report.

Fate of Constituents Released to Environment

Prior to construction of the OU-2 Water Treatment Unit, this seep area was submerged by the normal flow of South Walnut Creek and was not detected Several seeps immediately upgradient have been identified as containing similar volatile organic compounds (SW-59 and SW-61) and have been characterized in the South Walnut Creek Basin Surface Water Interim Measure/Interim Remedial Action (IM/IRA) The source of the groundwater contamination in this area is believed to be from the OU-2 Mound (IHSS 900-113) area where the burial of solvent wastes is documented in the Historical Release Report Plant process knowledge and geochemical interpretation suggest the 1,1-dichloroethane and vinyl chloride are degradation products of solvents released within the OU-2 area Vinyl chloride is a degradation product of tetrachloroethene and 1,1-dichloroethene which are both found in SW-59 and SW-61 Trichloroethene and tetrachloroethene were both used as solvents and probably released into the groundwater from previous waste management practices within OU-2. Benzene and 1,1-dichloroethane may also have been buried in the IHSS 900-113 Mound location Further investigation, characterization and remediation of the groundwater contamination in OU-2 are being conducted in accordance with the schedules identified in the Interagency Agreement (IAG) A seep characterization study is currently in progress which will map seeps at Rocky Flats in detail and investigate the relationship between surface water and groundwater

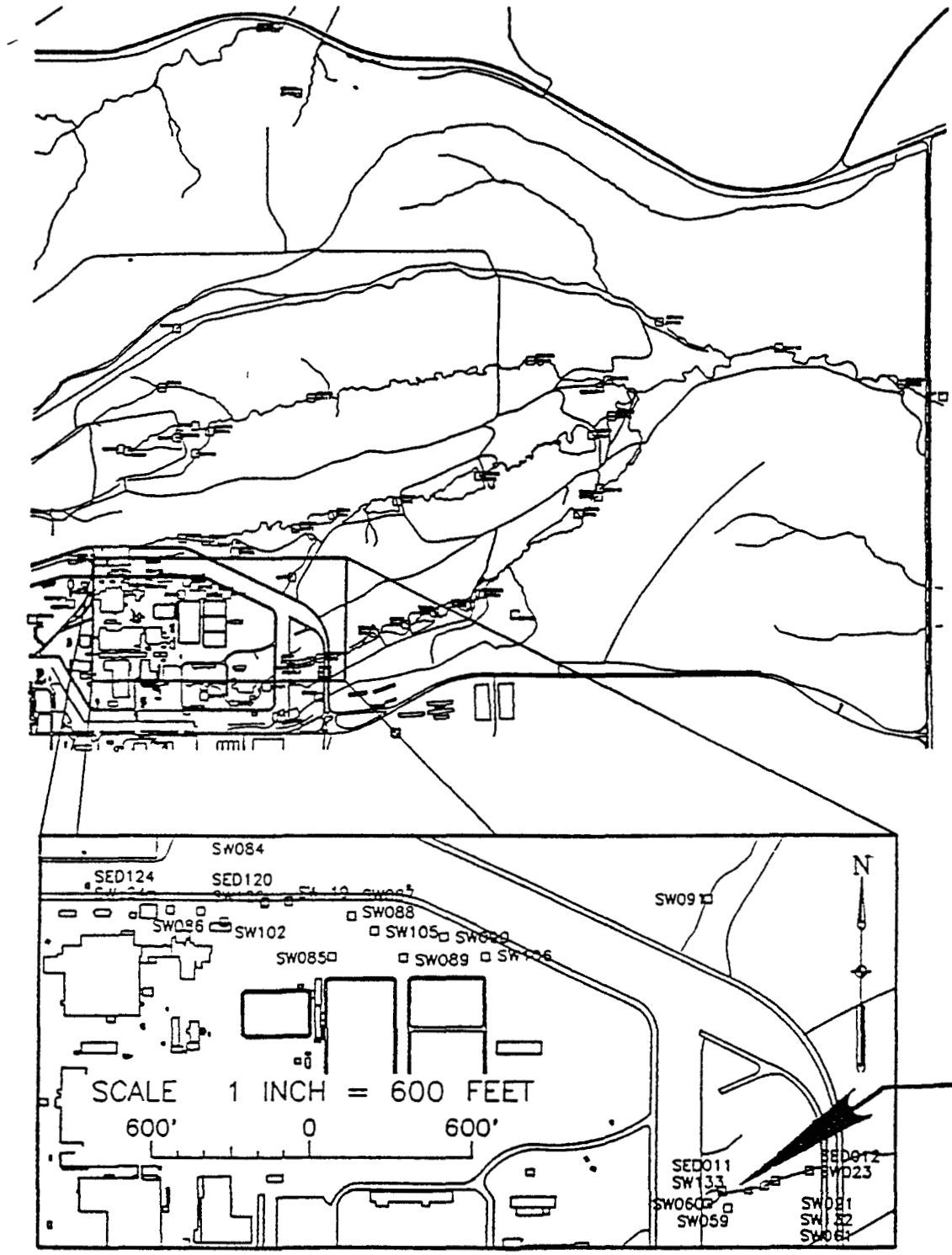
Action/No-Action Recommendation

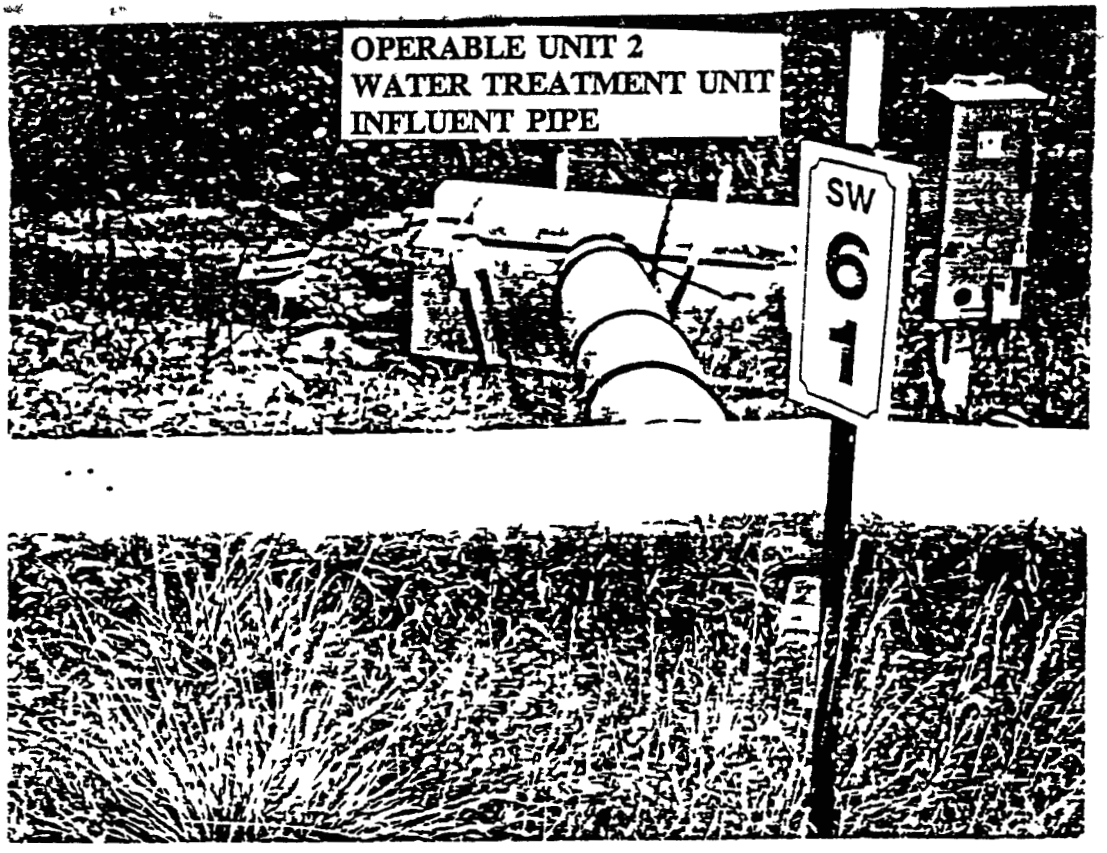
This area warrants further investigation due to the nature of the contaminants being released from the seep into South Walnut Creek

Comments

None

NORTHEAST QUADRANT





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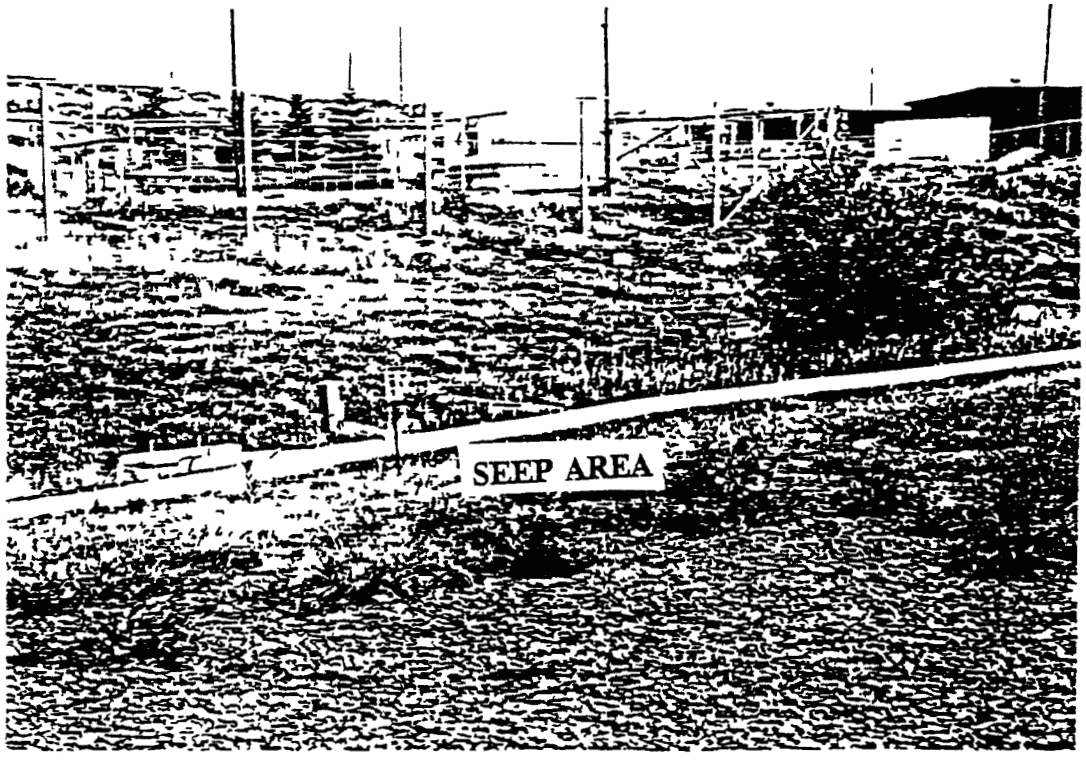

PAC REFERENCE NUMBER: SW-1701

IHSS Number NA

Unit Name: Recently Identified Ash Pit

CPIR No.. NA

Approx. Location N747,500, E2,079,000

Date(s) of Operation or Occurrence

September 30, 1994

Description of Operation or Occurrence

On September 30, 1994, during normal drilling activities near Individual Hazardous Substance Sites (IHSSs) SW-133 5 and SW-133 6 within Operable Unit (OU-5), a subcontractor field crew encountered metallic debris with a count rate of 2500 counts per minute beta/gamma. While drilling the first several feet of core, small shavings of the metallic debris became visible to the crew Radiological monitoring confirmed that 2500 counts per minute beta/gamma were detected with a Ludlum Model 31 from the core barrel and the core box of the sampling equipment. The project was stopped temporarily and EG&G Radiological Engineering was notified. Geophysical surveys conducted in the 1993 field season identified this and other small anomalies with potential for radiological contamination from depleted uranium (235 and 238 isotopes) This area is identified on the revised PAC map in Section 4 0

Physical/Chemical Description of Constituents Released

The activity of the material in the core was greater than 5000 dpm/100 cm-3 which exceeds the total fixed plus removable for beta/gamma contamination in Appendix 3 of the Occurrence Categorization Procedure. Recent 1993 magnetometer surveys suggest the potential for contaminated metals in this and other areas along the Woman Creek drainage within OU-5 This area is suspected to be an ash pit used for discarding incinerated plant wastes from a nearby incinerator (IHSS SW-133 5) which was in operation from 1952 to 1968 The incinerator was removed in approximately 1969 Surveys of the ash conducted in 1959 show that activities of 4,000 counts per minute (CPM) alpha and 30 millirems per hour (mr/hr) beta were detected Additional information from samples collected for asbestos, Polychlorinated Biphenyls (PCBs), Metals, and Isotopic Analysis for Pu, U, Am, radioisotopes have been sent to offsite licensed laboratories for normal turnaround. All validated analytical data will be documented in the OU-5 Resource Conservation and Recovery Act (RCRA) Facility Investigation/Remedial Investigation (RFI/RI) Report and transmitted to the Environmental Protection Agency (EPA) and the Colorado Department of Public Health & Environment (CDPH&E)

Response to Operation or Occurrence

The crews were dressed in level C Personal Protective Equipment (PPE) when the metallic debris was discovered on September 30, 1994. Radiological monitoring personnel immediately conducted wipe surveys and confirmed that 2,500 counts per minute beta/gamma (estimated to be greater than 5,000 dpm/100 cm-3) were present in the soil Drilling activities were stopped until further investigations could be conducted. Contaminated sampling equipment and samples collected were double bagged and placed inside a stainless steel paint can then transported to a Radiologically Controlled Area (RCA) in the EG&G field operations yard. No loose surface contamination was detected during the sampling activities EG&G Radiological Engineering performed a radiological screen analysis of the samples and the samples were then directly shipped in limited quantity to a licensed NRC laboratory

Fate of Constituents Released to Environment

Resource Conservation and Recovery Act (RCRA) Facility Investigation/Remedial Investigations (RFI/RI) are currently developing information which will detail the fate of constituents released from ash pit/trench activities between 1952 and 1968. Further characterization of this area will proceed under the normal OU-5 schedule due to the close proximity of IHSS SW-133 6 current investigations. IHSS SW-133 6, (the Concrete Wash Pad) boundaries were not expanded to incorporate this PAC due to the difference in histories between the two areas. All validated analytical data will be documented in the OU-5 RFI/RI Report and transmitted to the Environmental Protection Agency (EPA) and the Colorado Department of Public Health & Environment (CDPH&E)

Action/No-Action Recommendation

This area warrants further investigation and is actively being characterized within the scope and schedule of the RFI/RI Operable Unit 5 Work Plan and Technical Memorandum #15.

Comments

None

PAC REFERENCE NUMBER: SW-1702

IHSS Number: NA

Unit Name: Suspected Ash Pit

CPIR No.. NA

Approx. Location. N748,000, E2,080,000

Date(s) of Operation or Occurrence

Anomaly Identified During 1993 Geophysical Survey

Description of Operation or Occurrence

Geophysical (magnetometer) surveys conducted during the 1993 field season identified this area as being very similar to other anomalies in the OU-5 Woman Creek Drainage. The survey indicates that metals and possible radiological contamination from depleted uranium (235 and 238 isotopes) exist at this site. On September 30, 1994, a similar anomaly (PAC SW-1701) was investigated near IHSS SW-133.6 where radiologically contaminated metallic debris was discovered This PAC is identified on the revised PAC map in Section 4 0.

Physical/Chemical Description of Constituents Released

Similar anomalies in this area have shown radiological activity greater than 5000 dpm/100 cm-3 which exceeds the total fixed plus removable for beta/gamma contamination in Appendix 3 of the Occurrence Categorization Procedure. The potential for contaminated metals in this and other areas along the Woman creek drainage within OU-5 is likely due to similar histories This area is suspected to be an ash pit used for discarding incinerated plant wastes from a nearby incinerator (IHSS SW-133 5) which was in operation from 1952 to 1968 The incinerator was removed in approximately 1969

Response to Operation or Occurrence

There has been no occurrence related to this PAC

Fate of Constituents Released to Environment

Resource Conservation and Recovery Act (RCRA) Facility Investigation/Remedial Investigations (RFI/RI) are currently developing information which will detail the fate of constituents released from ash pit/trench activities in this area between 1952 and 1968

Further characterization of this area will proceed under the normal OU-5 schedule All validated analytical data will be documented in the OU-5 RFI/RI Report and transmitted to the Environmental Protection Agency (EPA) and the Colorado Department of Public Health & Environment (CDPH&E).

Action/No-Action Recommendation

This area warrants further investigation and is actively being characterized within the scope and schedule of the RFI/RI Operable Unit 5 Work Plan

Comments

None

PAC REFERENCE NUMBER: 500-907

IHSS Number: 172

Unit Name: Tanker Truck Release of Hazardous Waste from Tank 231B

CPIR No.: 94-009

Approx. Location: N750,000; E2,083,000

Date(s) of Operation or Occurrence

July 20, 1994

Description of Operation or Occurrence

At approximately 9:30 am., on July 13, 1994, during a RCRA tank inspection, evidence of a release was observed near building 231 At the time of the discovery sludge was being transferred from Tank 231B to a tanker truck in an effort to lower the level of sludge in the stationary tank for a valve repair job Approximately one-half pound of dried sludge was released to the soil At this same location on July 20, 1994, four gallons of liquid from the tanker were released to a secondary containment spill basin when a hose coupling was unlocked. It was estimated that more than a pound of liquid was sprayed onto two workers and adjacent soil both east and west of the spill basin. The workers were taken to building 374 and decontaminated in accordance with the DOE Radiological Control Manual requirements and implementation procedures Nasal swipes were collected from the workers and counted for radiological contamination Subsequent internal dose calculations for one of the workers confirmed a 12 millirem exposure which is considered a negligible dose over a one year time-frame. The second worker showed no measurable contamination from the swipes. Radiological surveys of the surrounding soil and basin area were conducted using a Bicron and SAC-4 instrument. The highest detected level of radioactive contamination was 651 dpm. Contaminated soil was containerized and the basin area decontaminated.

Physical/Chemical Description of Constituents Released

The material released from tanker truck No 6 on July 20, 1994 was rinse water used to flush the transfer line and tanker drain hose. The sludge from the tanker contains an F-listed waste, therefore the rinse water is being treated as a hazardous waste under the mixture rule. The EPA waste codes assigned to the waste contained in the 231 tank system include: D004, D006, D007, D008, D009, D010, D011, F001, F002, F003, F005, F006, F007, F009, and F039. No residual contamination was detected in preliminary samples.

Response to Operation or Occurrence

The area was cordoned off and posted immediately due to the radiological contamination. A wet vacuum was used to remove the liquid from the spill basin, and RCTs smeared the tanker and the basin area Approximately 30 pounds of soil was removed on July 13, 1994 from the first release followed by an additional 40 pounds of soil from the second release on July 20 and 21, 1994 The soil was containerized in a drum and is being managed as low level mixed hazardous waste in RCRA Unit 200

The RCRA Contingency Implementation Plan was initiated on July 20, 1994 as a conservative measure, due to the release from containment to the environment of approximately one pound of hazardous waste. Samples were collected from the wet vacuum, the tanker drain hose and surrounding soils (prior to and after excavation)

Fate of Constituents Released to Environment

Approximately 70 pounds of soil were removed from the area of the release and are being managed as low level mixed hazardous waste. Preliminary analytical data and monitoring indicate that contaminants were adequately cleaned up

Action/No-Action Recommendation

Until validated analytical results are received and confirmation of preliminary data show that the area was adequately cleaned up, this PAC will require further investigation.

Comments

None

PAC REFERENCE NUMBER: 900-1314

IHSS Number 101

Unit Name. Solar Evaporation Pond 207B Sludge Release

CPIR No : 94-010

Approx. Location· N750,529; E2,085,230

Date(s) of Operation or Occurrence·

August 8, 1994

Description of Operation or Occurrence

During sludge vacuuming operations at Solar Pond 207B South, approximately one quart of hazardous waste was released to the soil along the east berm of the pond The release occurred when a damaged latching mechanism on the side door of the vacuum truck did not properly seal Operations were immediately suspended, a catch pan was placed under the leaking door and the collected liquid was vacuumed up and transferred to RCRA permitted storage tanks. The effected soil was removed and placed into a 55 gallon drum and is being managed as RCRA regulated hazardous waste.

Physical/Chemical Description of Constituents Released

The material released from the vacuum tanker was solar evaporation pond water and sludge. The Waste Stream and Residue Identification and Characterization (WSRIC) book EPA waste codes to the solar evaporation pond sludge and water include F001, F002, F003, F005, F006, F006, F007, F009, and D006.

Response to Operation or Occurrence

Operations utilizing vacuum tanker #V8 were immediately suspended. A catch pan was immediately placed under the leaking door, and collected liquid was transferred to RCRA storage tanks on the 750 pad Repairs were made to the leaking door to prevent further releases, and materials remaining in the other stages of the vacuum truck were removed. The effected soil was containerized in a 55 gallon drum Samples of the remaining soil were collected to ensure that all contaminated soils were adequately cleaned up.

Fate of Constituents Released to Environment

No hazards to workers or the environment have been identified.

Action/No-Action Recommendation

This PAC does not warrant further investigation due to adequate documentation of the cleanup procedures and monitoring results

Comments

None

SECTION 3.0

REVISED PAC NARRATIVES

(no PAC Revisions)

SECTION 4.0

REVISED IHSS AND PAC MAPS